

this paragraph such a request and authorization to withdraw the appropriate fee under 37 C.F.R. §§ 1.16 to 1.21 from Arnold, White & Durkee Deposit Account No. 01-2508/ARSB:509/KIT.

Reconsideration of the application is respectfully requested.

AMENDMENT

In the Claims:

Cancel claims 2-6, 9 and 26-33.

Please amend the following claims:

1. (Amended) [A] An isolated DNA segment having the sequence of SEQ ID NO: 1, or the complement thereof, or a sequence that hybridizes to the sequence of SEQ ID NO:1 under conditions of high stringency comprising an isolated MTAP gene.

7. (Amended) An isolated nucleic acid segment characterized as:
 - (a) a nucleic acid segment comprising a sequence region that consists of at least 14 contiguous nucleotides that have the same sequence as, or are complementary to, 14 contiguous nucleotides of SEQ ID NO:1; or
 - (b) a nucleic acid segment of from 14 to about 10,000 nucleotides in length that hybridizes to the nucleic acid segment of SEQ ID NO:1, or the complement thereof, under [standard] hybridization conditions of high stringency.

14. (Amended) A method of [using a DNA segment that includes an isolated *MTAP* gene,] making MTAP protein comprising the steps of:
 - (a) preparing a recombinant vector in which a DNA segment having the sequence of SEQ ID NO:1[an MTAP-encoding DNA segment] is positioned under the control of a promoter;
 - (b) introducing said recombinant vector into a recombinant host cell;

- (c) culturing the recombinant host cell under conditions effective to allow expression of an encoded MTAP protein or peptide; and
- (d) collecting said expressed MTAP protein or peptide.

15. (Amended) A method for detecting [an] MTAP gene, comprising the steps of:

- (a) obtaining sample nucleic acids suspected of containing [an] MTAP gene;
- (b) contacting said sample nucleic acids with [an] the isolated [MTAP] nucleic acid segment of claim 1 under conditions effective to allow hybridization of substantially complementary nucleic acids; and
- (c) detecting the hybridized complementary nucleic acids thus formed.

22. (Amended) A nucleic acid detection kit comprising, in suitable container means, [an] isolated MTAP nucleic acid segment of claim 1 and a detection reagent.

34. (Amended) [A] The isolated DNA segment of claim 1 that is a tumor repressor gene that maps to 9p21-p22 that promotes melanoma senescence.

35. (Amended) [A] The isolated DNA segment of claim 1 that is a tumor repressor gene that maps to 9p21-p22 that suppresses glioma cell tumor generation.

36. (Amended) The isolated DNA segment of claim 1 further comprising [An isolated DNA segment identified as] T98G.